

Simoloyer® CM100

HKP for making Nanostructures

batch operation, auto-batch, semi-continuous

in general

High Kinetic Processing (HKP) in the Simoloyer® represents the most advanced technique for Mechanical Alloying (MA), High Energy (HEM) and Reactive Milling (RM) for making Nanostructures. Simoloyer® base unit remains the same in batch-, auto-batch and semi-continuous operation while different grinding units are equipped with corresponding ports. Standard for batch operation, type -s2 with 2nd mainport for auto-batch and type -s1 with semi-continuous ports for insitu separation/classification at carrier-gas/multiphase flow. All types cover batch operation, multiple mainports available up to type -s5 and exceeding. Grinding units from steel to ceramic Si3N4 to WC-Co.

technical data	Simoloyer® CM100b
standard grinding unit	W100-100l (batch)
max. relative velocity	14 m/sec
rotational-speed, direct	100 – 600rpm
auxiliary inverter drive	turning W100
grinding units	quick replacement
operation mode, load. rates	select grinding unit
materials, cooling/heating	
operation temp. (standard)	-20 – 80°C
airlock system	DN63/DN100
gas-supply (atmosphere)	DN25, ≤ 0.5 bar
operation vacuum/pressure	10 ⁻⁴ mbar up to 0,5bar
atmosphere	vacuum, var. gas, air
main inverter drive	110 kW
power-supply	400 V, 3 phase, 690A
cooling/heating supply	G1, up to 50 l/min
noise emission	92 dB(A)
net weight base unit/total	3.000/3.750 kg
L x B x H, space required	2.650x1.235x1.730mm, 25m ²



application

Large-scale batch processing, fine grinding, mixing, dispersing, homogenizing, primarily in dry operation under at maximum controlled condition. Nanostructured, nanocrystalline & amorphous materials, composites MMC, CMC, MMC, CCC such as battery materials, ODS/NFA, solid-state hydrogen storage, hard-metal applications, rapid particle size reduction and ductile metal flakes and multiple more.



Maltoz®-Simoloyer® Operating Program

Multimedia & functional software, allows Cycle Operation, controls and records different device- and process temperatures, records power & torque, provides complete process history on log files, a tool for the protection of human and hardware.

equipment / accessories

Airlock systems with dead-zone free drain- and charge-gratings • sample units & containers • vacuum-pump and gas systems • special valves • cooling blocks and heating systems • sound absorption cabinets • container manipulators • storage and loading systems.

